

REMARKS

[0001] The following paragraphs are numbered for ease of future reference. Entry of this Amendment is proper since no new issues are being raised which would require the Examiner's further consideration and/or search.

[0002] The following paragraphs are numbered for ease of future reference. Claims 45-54 are all the claims presently pending in this application. Claims 46, 49 and 51 have been amended to comply with the Examiner's objection to the claim language. Claim 50 has been amended to more clearly define the invention. Claims 45-54 have been canceled as being substantially similar to claims 45-49.

[0003] Applicant further respectfully submits that no new matter is added to the currently amended claims, nor has the scope of the pending claims changed. Applicant respectfully traverses the rejections based on the following discussion.

I. OBJECTION TO THE CLAIMS

[0004] Claims 46, 49, 51, 56 and 59 are objected to due to informalities and Applicant has amended the claims 46, 49 and 51 in a manner believed fully responsive to all points raised by the Examiner. Claims 46 and 51 have eliminated the term "surface." Claim 49 has rewritten the "coplanar" term to better clarify the intersection of the second vertical wall with the second and third surfaces are coplanar with the second vertical wall itself. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

II. THE PRIOR ART REJECTION

The 35 U.S.C. § 102(b) Rejection over Rostoker

[0005] Claims 45-54 stand rejected under 35 U.S.C. §102(b) as being anticipated by Rostoker, U.S. Pat. No. 5,662,768, (hereinafter “Rostoker”).

[0006] Applicant traverses the Examiner’s rejection since, among other reasons, Rostoker is directed toward forming trenches having high surface-area sidewalls with undulating profiles, where trenches are formed by first implanting multiple vertically separated layers of dopant in a substrate beneath a region, while Applicant’s claimed invention is directed toward a second vertical wall positioned in a vertical direction within a horizontal dimension of an opening in an upper surface of a substrate.

[0007] More specifically, Applicant submits, that Rostoker does not teach or suggest, “an opening in said upper surface of said substrate defined by said substrate material,...wherein said second vertical wall is positioned in a vertical direction within a horizontal dimension of said opening,” according to Applicant’s independent claims 45 and 50, and “wherein said third vertical wall is positioned vertically between an edge of a horizontal dimension of said opening and said second vertical wall,” according to Applicant’s independent claim 50.

[0008] The Examiner alleges on page 3 of the After-Final Office Action that Applicant’s claimed invention of, “wherein said second vertical wall is positioned in a vertical direction within a horizontal dimension of said opening,” is taught by the area designated by the plug of polysilicon 32 in Fig. 3 of Rostoker.

[0009] However, Applicant respectfully traverses this rejection on the basis that the Applicant’s claim language specifically defines the “opening” being “in said upper surface of said substrate,”

and that the “horizontal dimension of said opening” therefore coincides with the edges of the opening on the upper surface of the substrate, not any other horizontal dimension of the shape of the polysilicon plug 32.

[0010] Alternatively stated, since Applicant defines the opening in the upper surface of the substrate, and that opening in the upper surface of the substrate having a horizontal dimension, then Applicant’s claimed, “*wherein said second vertical wall is positioned in a vertical direction within a horizontal dimension of said opening*,” requires that the second vertical wall be positioned within the horizontal dimension of the opening in the upper surface of the substrate.

[0011] Likewise, according to claim 50, Rostoker fails to disclose, “*wherein said third vertical wall is positioned vertically between and edge of a horizontal dimension of said opening and said second vertical wall*,” since the protrusion of Rostoker as alleged by the Examiner on page 6 of the After-Final Office Action to be “the third vertical surface” clearly illustrates it is coincident with the opening in the upper surface of the substrate 4, and not between an edge of the horizontal dimension of the opening in the upper surface and the second vertical wall.

[0012] In summary, Rostoker is directed toward forming trenches having high surface-area sidewalls with undulating profiles, where trenches are formed by first implanting multiple vertically separated layers of dopant in a substrate beneath a region, while Applicant’s claimed invention is directed toward a second vertical wall positioned in a vertical direction within a horizontal dimension of an opening in an upper surface of a substrate.

[0013] Therefore, Applicant respectfully requests the Examiner to reconsider and withdraw this rejection since the alleged prior art reference to Rostoker fails to teach or suggest each element and feature of Applicant’s claimed invention.

III. FORMAL MATTERS AND CONCLUSION

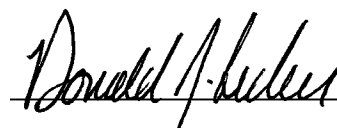
[0014] In view of the foregoing, Applicant submits that claims 45-54, all of the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

[0015] Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic interview.

[0016] The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Assignee's Deposit Account No. 50-0510.

Date: August 17, 2009

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Donald J. Lecher", written over a horizontal line.

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